II. Remarks

Support for the various amendments made to the claims herein may be found throughout the application as filed. Claims 1, 9 and 19 were previously cancelled. Claims 2-8, 10-18, and 20-25 remain pending in the present patent application. Claims 5, 6, 15, 16, 22 and 23 are amended herein. No new matter is added as a result of the Claim amendments. Applicants respectfully request further examination and reconsideration in view of the remarks set forth below.

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III. Rejections of Claims Made in the First Office Action

In the communication from the Examiner mailed June 28, 2006, the Examiner rejected claims on the following basis:

(1) Claims 2-8, 10-18 and 20-25 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,148,016 to Murakami et al.

The foregoing rejection is responded to below.

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IV. Response to Rejections Made in the June 28, 2006 Office Action

(1) Claims 2-8, 10-18 and 20-25 as amended herein are not anticipated by U.S. Patent No. 5,148,016 to Murakami et al.

In rejecting claim 2-8, 10-18 and 20-25 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,148,016 to Murakami et al., the Examiner stated:

Referring to claims 5,15, and 22, Murakami discloses in figure 1b an optical position-tracking system comprising; a first light beam steering device (131,125) for sweeping a first light beam through a first angular range <p1 to cause a reflection of a first light beam by a target back to the first light beam steering device to be directed towards a direction facilitating determination of a position of said target (112), wherein the first direction is substantially parallel to a first light direction from which the first light beam is received at the first light beam steering device (see direction from 123 to 125 in figure 1b); and a second light beam steering device (132,126) for sweeping a second light beam through a second angular range <p2 to cause a reflection of said second light beam by said target back to said second light beam steering device to be directed towards a direction facilitating determination of said position of said target, wherein the second direction (from 126 to 124) is substantially parallel to a second light direction (124 to 126) from which the second light beam is received at the second light beam steering device; wherein said position of said target is determined using a triangulation technique (see col. 2 lines 25-28) utilizing a first angular value of said first light beam and a second angular value of said second light beam (col. 2 lines 46-49), and wherein said first angular value and said second angular value depend on the existence of said respective reflection (see col. 2 lines 40-46). Further, Murakami teaches the first mirror drive 131 rotates mirror 125 at a predetermined angular velocity and range to look for the target in screen 104 (see figure 1b, col. 3 lines 16-19, col. 9 lines 16-28), which reads on the broad claim language "if said target reflects said first light beam when said first light beam is at a particular angular value, said first light beam steering device sweeps said first light beam through a limited angular range that includes said particular angular value until said target fails to reflect said first light beam" since the angular range covers the whole screen, and

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the claim language does not call for a change in the angular range.

Referring to claims 2, 10, Murakami teaches a processing unit for determining said position of said target (see col. 23 lines 56-59).

Referring to claims 3,11, 20, Murakami teaches the position of said target is an absolute position (see Abstract).

Referring to claims 4,14,21, Murakami teaches the target includes a retro-reflecting surface (see Abstract).

Referring to claims 6,16, 23, Murakami teaches the second mirror drive 132 rotates mirror 126 at a predetermined angular velocity and range to look for the target in screen 104 (see figure 1b, col. 3 lines 16-19, col. 9 lines 28-37), which reads on the broad claim language "if said target reflects said second light beam when said second light beam is at a particular angular value, said second light beam steering device sweeps said second light beam through a limited angular range that includes said particular angular value until said target fails to reflect said second light beam" since the angular range covers the whole screen, and the claim language does not call for a change in the angular range.

Referring to claims 7,17, 24, Murakami teaches the first light beam steering device and said second light beam steering device are scanning mirror beam steering devices (col. 5 line 65 - col. 6 line 1).

Referring to claims 8,18, 25, Murakami teaches the first light beam and said second light beam are each generated by semiconductor lasers (122 and 121, see col. 6 lines 15-16).

Referring to claims 12, Murakami teaches the position enables controlling a cursor in said computer system (see col. 8 lines 49-50).

Referring to claim 13, Murakami teaches the position enables inputting data into said computer system (see col. 1 lines 13-22).

The Examiner rejected all of still pending claims 2-8, 10-18 and 20-25 as being anticipated by the Murakami reference. A rejection based on anticipation under 35 U.S.C. §102 requires that all elements recited in the rejected claim be found within the four corners of the cited reference.

Each of claims 2-8, 10-18 and 20-25 as amended herein requires a system or corresponding method comprising a first light beam steering device for sweeping a first light beam through a first angular range to cause a reflection of said first light beam by a target back to

Serial No.: 10/655,944 Art Unit: 3662 Examiner: Isam Alsomiri - 12 - Avago Technologies 10030169-1 said first light beam steering device to be reflected towards a first direction facilitating determination of a position of said target, wherein said first direction is substantially parallel to a first light direction from which said first light beam is received at said first light beam steering device; a second light beam steering device for sweeping a second light beam through a second angular range to cause a reflection of said second light beam by said target back to said second light beam steering device to be reflected towards a second direction facilitating determination of said position of said target, wherein said second direction is substantially parallel to a second light direction from which said second light beam is received at said second light beam steering device, wherein said position of said target is determined using a triangulation technique utilizing a first angular value of said first light beam and a second angular value of said second light beam, and wherein said first angular value and said second angular value depend on the existence of said respective reflection; and wherein if said target reflects said first light beam when said first light beam is at a first particular angular value, said first light beam steering device sweeps said first light beam through a first limited angular range that includes said first particular angular value until said target fails to reflect said first light beam, whereupon said first limited angular range has been swept through and said first light bean steering device stops sweeping said first light beam.

As discussed above, for the cited Murakami reference the still pending claims as amended herein, each and every limitation set forth in that claim must appear within the four corners of the Murakami reference. Among other elements and limitations, the Murakami reference does not disclose, hint at or suggest a target that reflects a first light beam when the first light beam is at a first particular angular value, the first light beam steering device sweeping the first light beam through a first limited angular range that includes a first particular

Serial No.: 10/655,944 Art Unit: 3662 Examiner: Isam Alsomiri - 13 - Avago Technologies 10030169-1 angular value until the target fails to reflect said first light beam, whereupon the first limited angular range has been swept through and the first light bean steering device stops sweeping the first light beam. Thus, it will now be seen that the Examiner's rejection of the still pending claims as amended herein as being anticipated by the Murakami reference would be overcome by the amendments made herein, and that the presently amended and still pending claims include several elements and limitations disclosed nowhere, and suggested nowhere, in the cited Murakami reference.

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٧. Summary

Claims 2-8, 10-18 and 20-25 remain pending in the present patent application, and are believed to be in condition for allowance. Examination of the application as amended is requested. The Examiner is respectfully requested to contact the undersigned by telephone or e-mail with any questions or comments he may have.

Respectfully submitted,

Xie et al.

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